Det. Bel Isle & Windsor Ferry Co

DEVOTED TO NAVIGATION, COMMERCE, ENGINEERING AND SCIENCE.

VOL. XI. NO. 13. CLEVELAND, O., MARCH 28, 1889. $2.00 PER ANNUM SINGLE COPIES 5 CENTS

AROUND THE LAKES.

CLEVELAND, OHIO.

The Str. V. Swain is in the Cleveland dry dock for a new Trout wheel, and calking.

The Wilson fleet are beginning to fit out. Four of the line wintered at Buffalo, and four are here.

Captain Goodall, last season in the H. E. Packard, will command the propeller C. J. Kershaw this season.

Mr. John Corrigan has made the following appointments: Propeller Aurora, Captain Chapman; schooner Geo. W. Adams, Captain Lockwood.

G. C. Barnes, agent for the Ætna grate, is furnishing a larger number of the Ætna grates than ever before, and business is brisk, with an excellent outlook.

The Chase machine company are very busy, work being carried on till 9 p. m., each evening, so as to carry out punctually the recent orders taken by this entetprising and energetic firm in general machine work.

Captain James Corrigan has made the following appointments: Propeller Caledonia, Captain A. W. Reed; Bulgaria, Captain Cummings; Australasia, Captain A. H. Reed chief engineer, Mr. Eardly; schooner James Couch, Captain A. R. Robinson.

The Globe iron works company will launch No 24 from their shipyard on Tuesday afternoon at 3 o'clock. She is the second boat built by the company for the Lehigh Valley line, and will be named the Cayhuga.

Mr. Delos Hayden, who has been assistant keeper of the breakwater lighthouse for two years and a half, and keeper of the Cleveland harbor lights for the past year, has been appointed as keeper of the West Sister Island lighthouse, vice Captain John Cunningham reisgned.

The appointments for Captain Johnson's fleet are as follows: Steamers, H. J. Johnson, Captain J. J. Higgins; Horace A. Tuttle, Captain W. Morris; Business, Captain Meyer; V. Swain, Captain George Bassett; Helvetia, Captain H. Hoover; the new steamer George Presley, Captain John Thompson.

Captain Fick, of the George T. Hope, says that the Providence ship windlass manufactured by the American Ship Windlass company, Providence, R. I., is the finest machine ever put on board a vessel. The one on the George T. Hope is doing splendid work on all occasions, and Captain Fick speaks highly of its work under trying circumstances.

Captain Thomas Wilson left this city yesterday for Buffalo, to attend to the fitting out of his fleet wintering at that port. His recent cruise down south seems to have reinvigorated the energetic captain and he is a complete epitome of everything relating to the Peninsula state. We are not alone in the belief that he casts a wider shadow since his return from the sunny shores of Florida.

At the Cleveland ship building company's works, the new steel steamship launched from their yards last Saturday, has her two boilers already on board, two masts stepped, and the other two in readiness. A large number of men are kept steadily at work on her, including machinists, carpenters, riggers, and joiners, and she will be ready for business at short notice. Work on number five, the second boat building for the Cleveland iron mining company, is progressing rapidly, and she is now assuming a definite outline. Work in the machine shops, boilershops and the other departments is very brisk, and numerous orders are being executed besides their usual large amount of marine work.

Meteorological summary for the week ending March 26, 1889:

Mean barometer	30.047
Mean temperature	38.1
Mean humidity	74.0
Total precipitation	.13
Prevailing direction of wind	N. W.
Total wind movement, miles	960
Average cloudiness	5.4
Average state of weather	Cl'dy
Max. temperature, (highest)	59.2
Min. temperature, (lowest)	23.8

W. H. HARMON, Sergeant Signal Corps.

The gate of the shipowner's dry dock was tested, according to our report last week, and a defect in the flood gates was found, which will probably cause about a week's delay. Ths dock has been pumped out again, and no time will be lost in affecting the necessary alterations, although the set back has been a disappointment. It is expected that considerable repair work will be done on vessels before the full opening of navigation.

At 3:30 o'clock Saturday afternoon the body of a man was found lying by the side of the Cleveland & Pittsburg tracks at Curtis avenue. It is supposed that the man was struck by a passing train and killed. The remains were taken to Hogan & Harris' morgue, where the dead man was identified as Captain Francis Brady, a retired mariner, whose family resides on Oliver street, near Oregon. Captain Brady was employed as a night watchman at the Globe carbon works.

By a pamphlet received from M. H. Dodge, manufacturer of storm oil bags, we note a change of his office to No. 3 Superior street, near the Anderson & Bates steamboat landing, foot of Superior street. We would call the attention of vessel owners and captains to these storm oil bags as being what is certainly needed on board of all their boats. The manner in which these bags are put up and made ready for use, seems to us to be the only way in which oil can be used with any real benefit, and we firmly believe that the idea of oil dripping upon the water, in case of severe storm, is a good one, and every boat that leaves this port should have a case ready in time of emergency. It may be a long time before an occasion would require its use, but, in the life of a boat, the time will certainly come when its use will either save the boat, or be of great benefit during sudden storm. The Century for the month of March says: "Among the recent reports from the hydrographic office, oil has been successfully used by eighty-two steamers, twenty-one ships, and sixty-five barks and vessels, and while all of these used it with great benefit, the captains of twenty-eight others state that, without the use of the oil, their boat would have been lost" It seems to us that this use of oil should no longer be neglected, and we would recommend all boats to carry these oil bags

ALPENA, MICH.

Special to the Marine Record.

The Alpena appointments are as follows: S. C. Hall, Capt. John Donar, chief engineer, Coosh Williams; Gardon City, Capt. Foster, chief engineer, John Manar; Tug Sumner, Capt. Harry Richardson, chief engineer, Albert Wilcox; tug Effie L. Capt. Thos. K. Lillie, chief engineer, Dinnis Smith; tug Ralph, Capt. C. A. Richardson, chief engineer, Dave Thompson; tug Wayne Isabelle, Capt. Dave Lincoln, chief engineer, Henry Mason; tug J. W. Westcott, Capt Geo. Howse; steam yacht Hinda, Capt. F. W. Fletcher, chief engineer, Byron Pearson; boom tug New, Capt. Grant, chief engineer, Bob Grant; towbarge Michigan, Capt. Hewitt; Sam Flint, Capt. H. G. Hamilton; Nellie Mason, Capt. Harry Morey; Lightguard, Capt. Thos. Stevens; Russian, Captain James Hamilton; S. H. Lathrop, Capt. Jessie Jones. Steambarge Porter Chamberlain, Capt. McClarity, chief engineer, Thos. Walker; Fred McBrier, Capt. Dave Cleary; Westford, Capt. Frink; str. Neko building for A. W. Comstock & Co., at Trenton, Capt. John Edwards, formerly of steamer Pearl. Tow barge Moniter, Capt. Dave Sidney. Schooner Glad Tidings, Capt. Fred Sharpsteen; Lambert, Capt. Charles Lee.

The tug Fisher has been running here for the last week, fishing. She has been sold to parties at Huron, O., and will leave here as soon as the Wayne Isabelle is ready to take her place, which will be in about ten days.

The barge L. H. Lathrop has had a thorough rebuild, three strakes of plank on top sides, new stanchion all around, new shelf pieces, new deck frames and deck, new cabin, and is planked solid up to rail, and new ceiling, at a cost $2,500. The tug Wayne Isabelle has had a rebuild at a cost of $2,000.

The schooner Glad Tidings, formerly the gospel ship owned by Captain Bundy, was bought here last fall by J. Mullerweiss, jr., and has had 20 feet put into her midships, new timber put in where wanted, new ceiling throughout, new main masts, and thorough rebuild to make her rate A1. A. C. Pierce, of Shebewaing, is doing the workat a cost $1,500. Captain Fred Sharpstien will be master. She will be employed in carrying merchandise for Mullerweiss and company's store of this city.

No ice to be seen in this locality; the lumber fleet expect to leave the first of April.

F. W. Gilchrist is building a new steel steambarge at Buffalo. She will be out the first of August, and will carry about 1,800tons.

WILLIAM.

DULUTH, MINN.

The Herald says it is quite probable that inside of four weeks communication by lake will be resumed with Port Arthur and intermediate points.

Fishermen are getting their nets and boats in order and an attempt will be made next week to distribute supplies and establish camps on the south shore between here and the Apostle Islands.

New shipping spouts and tackle are being placed on several of the elevators and new winding piles are being put in position at the corners of many docks and pier heads.

The range piers in the Superior entry channel will be ornamented and made useful at night by the addition of range lights.

Considerably over 8000 feet of new dockage will be built this season, including the West Duluth and St. Louis river improvements.

Captain Byron Inman returned Saturday, and the air in the vicinity of the big Inman fleet is full of flying paint brushes, carpenter tools and other evidences of life. Steam will be up in the Record this week and she will commence next week to break ice (if any remains) for the Williams & Upham dredges. The Ossifrage is a scene of life and hustle, and she will probably make a trip to Port Arthur two weeks from today. She has a lot of freight under contract at both ends of the route. This time last year the boats had a great thickness of solid ice around them; now there is not six inches, and some of the craft are perfectly free. The local opening will be six weeks earlier than last year.

Captain Ned S. Smith, of the fishing tug Eviston, has decided to go out of the fish business for this year at least, and to branch out as a log tower and general harbor work. He has just bought the large and solid tug Pathfinder, of Toledo, and will bring her here on the opening of through navigation. The tug is of the same power as the iron tug Record, of the Inman line, but is a little longer and of about 35 tons register. She was built in Chicago a few years ago, is rated A1 and is worth $7000 or $8000.

The Pathfinder will be used for log towing and general outside work, and will be commanded by Captain Smith, while the Eviston, which has been in the fish trade for several years, will be used inside as a sort of helper, and will be captained by Bob Curtis, late of the fire tug Sutton. Captain Smith leaves in about two weeks for Toledo to bring up his new boat.

At the opening of navigation, Duluth will have in store for shipment 150,000 barrels of flour, 1,500,000 bushels of corn, and 2,500,000 bushels of wheat. On the 5th of May, last year, Duluth elevators contained 9,000,000 bushels of wheat.

BUFFALO, N. Y.

The steamers City of Cleveland and Gladstone were last Saturday chartered by Brown & Co. for coal to Chicago at 60 cents per ton. The figure is better than had been expected, in view of the large amount of tonnage here and the heavy stocks of coal carried over at western ports.

Three of the Northern line of steamers will run in the Lake Superior transit line, between Duluth and Buffalo. The Annie Young and Gordon Campbell may run to Gladstone this season.

MARINE CITY, MICH

Special to the Marine Record.

The fine steamship building at Robert Holland's shipyard by Alexander Anderson, master builder, is to be launched this week. She is 231 feet over all, 37 feet beam, 14 feet hold. The fore and aft compound engine built by the Phœnix iron works, Port Huron, is 27 and 50, by 40, and boiler by the same firm, 12 and 16 for 114 pounds steam pressure. This steamship is the largest yet built at R. Holland's shipyard, and is an excellent model, and built of splendid timber. Her main keelson is 14 by 14, assistant keelson 14 by 14, rider keelson 12 by 14, and assistant riders 12 by 14. She is molded 17 inches in the breech, 15½ inches at the bilge, 8½ inches at deck, 7½ inches at the rail. Her frames are of 6 inch flitch, not any short frames on the floor, extra floor on every other frame, ceiling on floor 4 inches. 12 strakes of bilge 5, 6, and 7 inches, up to shelf 4 inches thick, shelf pieces 34 inches wide, deck frames 6 by 9 on each frame and double at hatches and mast partners, a strong pack under each beam 6 by 9 and 12 feet long. She has a straight cord of iron under the rail 8 by ⅞, and is diagonally strapped with iron 4 by ½ from the rail to under the bilge. She has 5 hatchways, 24 feet centers, 30 waste gates on each side on deck, and will carry three masts. She is supplied with the American ship windlass company's steam windlass and capstan forward and capstan aft. A Trout wheel 11 feet diameter, extra sheaves for steering gear 18 inches diameter, best patent by Bagnal and Loud. Her cabins will be of good dimensions and fitted up with all modern conveniences. She will carry about 1,500 net tons, or 900,000 lumber. Captain John Pringle, who has an interest in her, will command her, and may well feel proud of this splendid piece of marine architecture.

Wm. B. Morley, shipbuilder, is building a splendid steamship for James Corrigan and James Huntington of Cleveland. Her dimensions are 290 feet at water line, 306 feet over all, 42 feet 2 inches beam, 24½ feet molded depth to rail. She has 7 very heavy keelsons, ceiling floor 5 and 6 inches, bilge 7 inches, to deck 6 inches, main deck beams 10 by 10 and 10 by 12, carlings 6 inches square, 3 knees on each beam, upper deck, hatch beams 7 by 10, other beams 7 by 8, plank on bottom, two strakes garboard 7 by 13 edge bolted, plank to bilges 6 inches, above bilges 5 inches, edge bolted and all square fastened with ¾ inch iron bolts set and bunged. She has 8 hatchways, and will have 4 masts. She is being built of very fine timber and every thing about her is done very neatly, and excellent workmanship is displayed. Her cabins, officers and crew's quarters will be well furnished and have all modern conveniences for their comfort. She will carry 3000 net tons, and will be out about the middle of the season. She will have a triple expansion engine 20 & 31 &52 x 40, to be built by the Detroit dry dock engine works. Two Scotch type boilers 12 by 11 each, for 160 pounds steam pressure by the Detroit dry dock boiler works; a Trout wheel 12½ feet diameter. The American ship windlass company's steam windlass and capstans, and the Cleveland Globe iron works company's steam steerer.

WILLIAMS.

ST. CLAIR, MICH.

Special to the Marine Record.

Simon Langel and Son, shipbuilders, are building a very fine steamship of the following dimensions: 218 feet keel, 230 feet over all, 36 feet beam, 14 feet hold. She will have a fore and aft compound engine 26 and 48 by 40, built by S. F. Hodge & Co., Detroit, and a marine boiler 12 by 16 built by Love & Schofield, Port Huron, and a Hodge wheel 11 feet 4 inches diameter. She is very strongly built, of very fine timber, has steel arches, and steel diagonal strapping, and will carry 1,500 net tons. She is an excellent model and all the material and workmanship about her is of the very best.

Captain H. Fish, and engineer George Miller are having the steamship Kalkaska fitted out for the coming season.

The steambarge Lowell, Captain C. H. Westcott, has had considerable work done on her boiler by Maher & Flajole, National boiler works, Bay City.

The schooner Reindeer, Captain Anderson, has received new decks.

The schooner Goodell, Captain T. Ewing, has received new decks and re-calking all over. Captain Ewing is now sole owner of her.

Captain W. C. Brown's steambarge Oswegatchie, will go to Port Huron and receive new arches.

Captain C. Hartman, and Moses F. Carlton, owners of the tug John Nice, are giving her new cabins, and having her boiler repaired.

Fred J. Nemo, who was mate on the steambarge Bessie last season, will command her the coming season. She has received considerable repairs to her boiler, new smoke stack and a general overhauling. and a coat of paint, which makes her look good. Captain Nemo is a hard working, persevering young man, and we wish him every success.

WILLIAMS,

KINGSTON, ONT.

The steamer Geneva has been sold to Rochester parties.

The forwarders in Kingston are anticipating a very busy season.

The ice is rapidly disapearing in the Bay of Quinte. Open water is visible at many points.

The schooner Margaret Muir brings 24,000 bushels of corn from Chicago to Kingston at 5 cents.

The steamer Ella Ross will run this season between Picton and Napanee. Captain Angus Stanton will command her.

The steamer Island Wanderer will ply on the Alexandria Bay-Ogdensburg route this season. Captain Forrester will pace her quarter deck.

Ald Fenwick has decided to call a meeting of marine men on Monday next to discuss the location of the lights which the government proposes to place in the harbor for the benefit of vessels entering after sundown.

It is said that never in the history of steamboating or railroading in Canada will there be afforded cheaper or better accommodation for the traveling public on steamboats or railways than during the coming summer.

MILWAUKEE, WIS.

The first lake vessel of the season to reach Milwaukee, outside the winter line boats, reached this port early Monday morning. It was the schooner Metzner, from Kewaunee, laden with bark and 1,000 posts. Her officers report a very fair and satisfactory trip. The first vessel to leave this port for the regular spring opening will be the John Ruger, which has finished loading with 50,000 bushels of grain for Kingston.

Marine men are inclined to the opinion that lake business will open early this season, but that it is very liable to be unusually light for months, at least, if not for the entire season. The fact is cited that the lumber yards are well filled with lumber, while the mountain of coal (about 1,000,000 tons) landed here by lake last season scarcely appears to have a hole in it as yet, and few dealers will need much more.

OWEN SOUND, ONT.

Last Saturday evening a young man named Fraser was crossing the bay on the ice from Sydenham to Sarawak, near Presque Isle, and when about half a mile from the west shore broke through the ice. He was heard calling for help by two Sarawak farmers named Allen and Muir, who hastened to assist with a rope, and each carrying a plank. The ice was so rotten that when Mr. Allen got Fraser on the plank with him they both broke in, but were got out by Mr. Muir, and arrived on shore without further mishap. Mr. Fraser would have been drowned long before they arrived to his assistance, but he carried a pole which held his head above water. The lake is open about a mile north of Presque Isle, and the ice very rotten. Navigation will soon be open.

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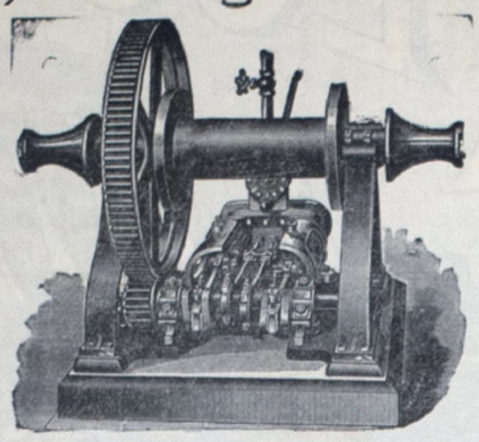

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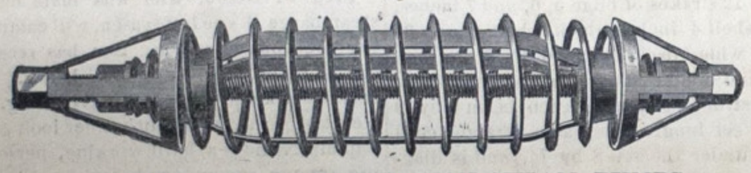

AGENTS FOR WORTHINGTON STEAM PUMPS.

WORKS 64 TO 72 ORLEANS ST., DETROIT, MICH.

MARITIME LAW.

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE NORTHERN DISTRICT OF ILLINOIS.

M. A. BRADLEY, *et al.* *vs* PROPELLOR PRIDGEON. } In Admiralty.

ARGUMENT BY H. D. GOULDER, PROCTOR.

Our vessel checked when the fog came on, and from that time up to the collision her speed is estimated carefully by a large number of witnesses. In the first place, the engineer says that he checked by letting the steam run down ten or fifteen pounds, so that he would have no surplus of steam, and then by shutting off the throttle until the engine was turning over about fifty turns per minute. Without any qualification or doubt or hesitancy he says that this would drive the Chamberlain, when light and with nothing in the wind or weather to interfere, at the rate of five miles an hour (pp. 10 and 11); that her speed that night was therefore five miles an hour, less whatever the tow held her back, which is estimated by a number of witnesses at from a half to three-quarters of a mile per hour. Our master had the subject of speed on his mind. He looked over the side, gave his attention to the question of speed and came to the conclusion that she was going at a rate of from four to four and a half miles an hour, which he regarded as moderate and safe. (p. 36). This estimate of speed he claims to have formed for himself in view of the fact he was in a somewhat dangerous locality and wanted to be sure of his rate of speed. Our watchman, (pp, 22-23), who was on lookout, judged by a variety of circumstances, including the fact that the Chamberlain was not carrying the water before her, forming what the sailors call a "bone in her teeth," and his estimate of her speed was from four to five miles an hour. The second mate, (p. 2) also on lookout, and with the same opportunities to judge, estimated her speed at from four to four and a half miles an hour.

Only these four witnesses on the Chamberlain pretend to be able to give a reliable estimate of her speed. They all had good opportunities, all testify that they took advantage of them, and through a long and searching cross-examination they simply confirmed the value of their estimates by presenttng and establishing the reasons on which they based their testimony. The wheelsman on duty says that she was checked, but with his opportunity of judging merely by the motion of the boat and the steering, he could not say how much she was checked; and the same testimony was given by the mate and wheelsman who were below but not asleep.

On sailing vessels generally no other means is employed for arriving at the speed than by estimating the passage of the vessels through the water. Fowler, second mate of the Brown, (p. 44), so estimated the speed at four miles, possibly at from four to five. Gerard, mate of the Brown, fixed it at not over four or five miles an hour. (p. 51). Judson, master of Brown, fixed it at not over five miles. (p. 59.) Bayless, master of the Palmer, then running at seven miles an hour, about, says that they gained so rapidly on the Nahant and the Chamberlain from a little before 8 o'clock that he remarked to his mate that those fellows ahead had slowed down, (pp. 67-68). The sails were not helping our tow. The Palmer's sails were not helping her. (p. 70). The Nahant's sail was doing no good and they took it in. (pp. 82-86). All of the Chamberlain's crew testify that her sail was not helping. The master, mate, second mate, and a seaman on the Brown testify that she had all her light sails and her mizzen in, that her foresail and mainsail were squatted down to the second reef, and the boom was pulled inside the rail; that a single reef was put in the sails, and by that time the wind had died out and the sails were left hanging as they were, and were not helping any. (pp. 43, 45, 49, 53, 56, 57, 59). They confirmed this by the fact that when they wanted to use the capstan, to heave in the tow-line by a messenger, after the collision, they first had to get the foreboom and foresail out of the way. The master of the Brown says, (p. 51), that there was not enough wind to propel his vessel in that shape over three miles an hour. These witnesses testify that the Brown went past the Pridgeon about as fast as a man would ordinarily walk, sort of drifted past. (pp. 51, 61). And I specially called the attention of the court to the fact that not one of these statements is controverted by a single witness, nor is one of them opposed to any other fact or circumstance shown in this case.

The wind was S. S. E. to S. E. This was claimed by both sides, in argument. I will therefore not cite to the testimony.

That our whistle was blowing regularly, from the time the fog set in until the collision, is not contraverted. Our crew testify that it was, and the crew of the Brown so testify. The captain of the Palmer heard it and so testifies, and so did the captain and mate of the schooner Shepard, called by the respondent.

Proceeding in this manner, we were steering a course N. by E. Our wheelsman gives this course. (p. 16). Captain Greenley, (p. 34), who had merely to look into the pilot-house window, as his vessel was constructed to see the compass, gives this course as of his own positive knowledge. The

[CONTINUED ON SIXTH PAGE.]

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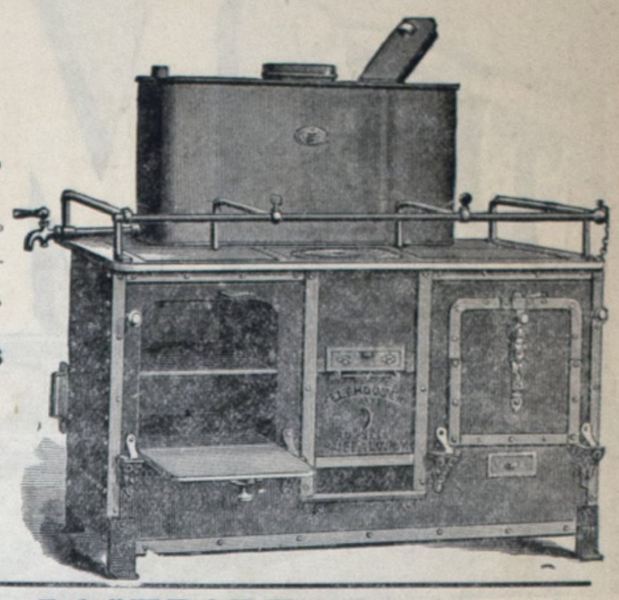

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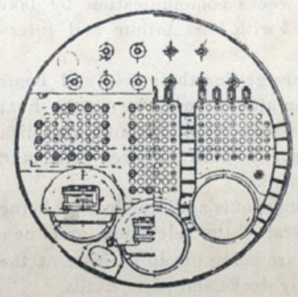

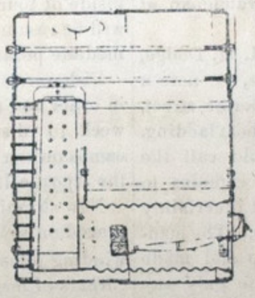

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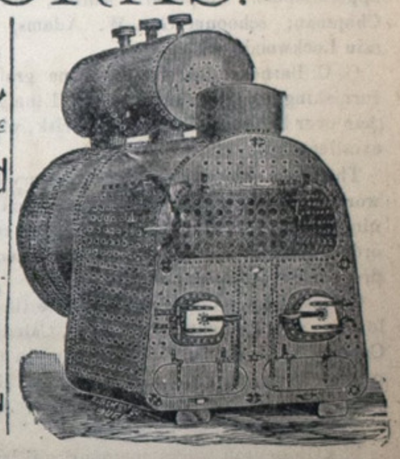

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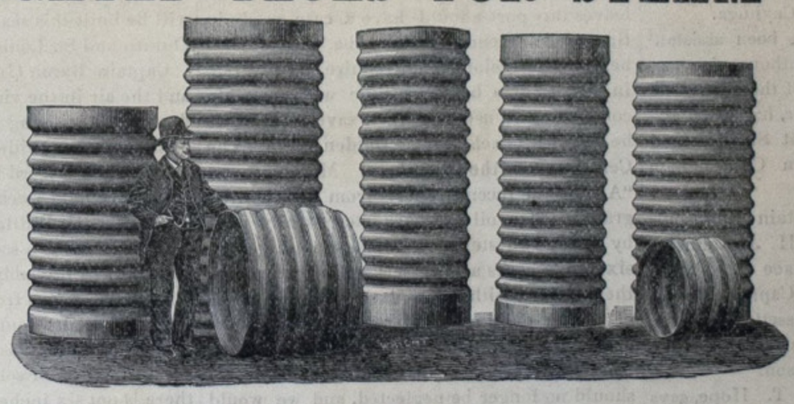

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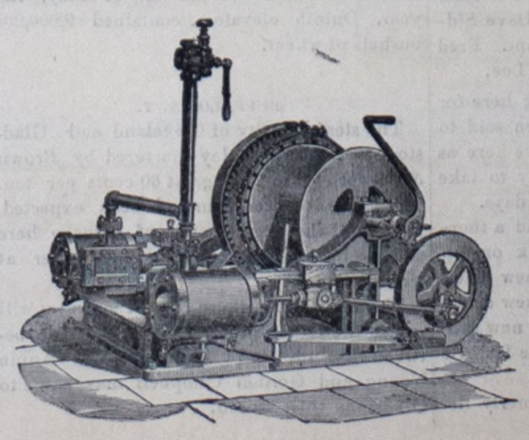

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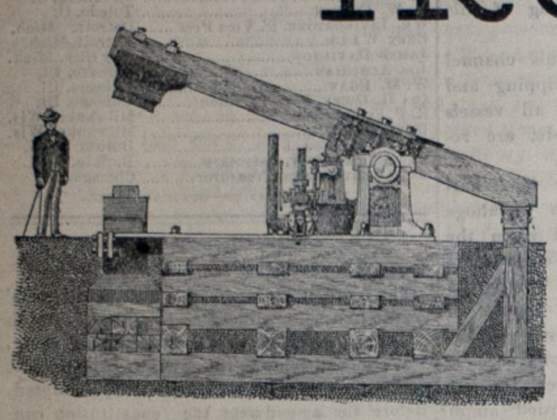

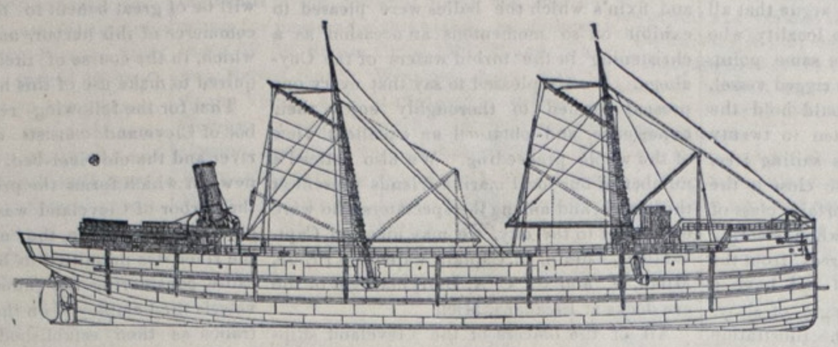

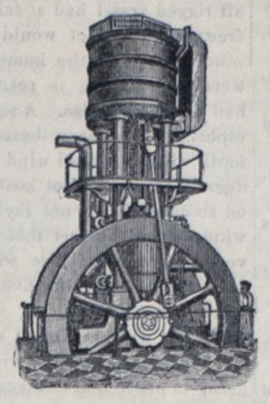

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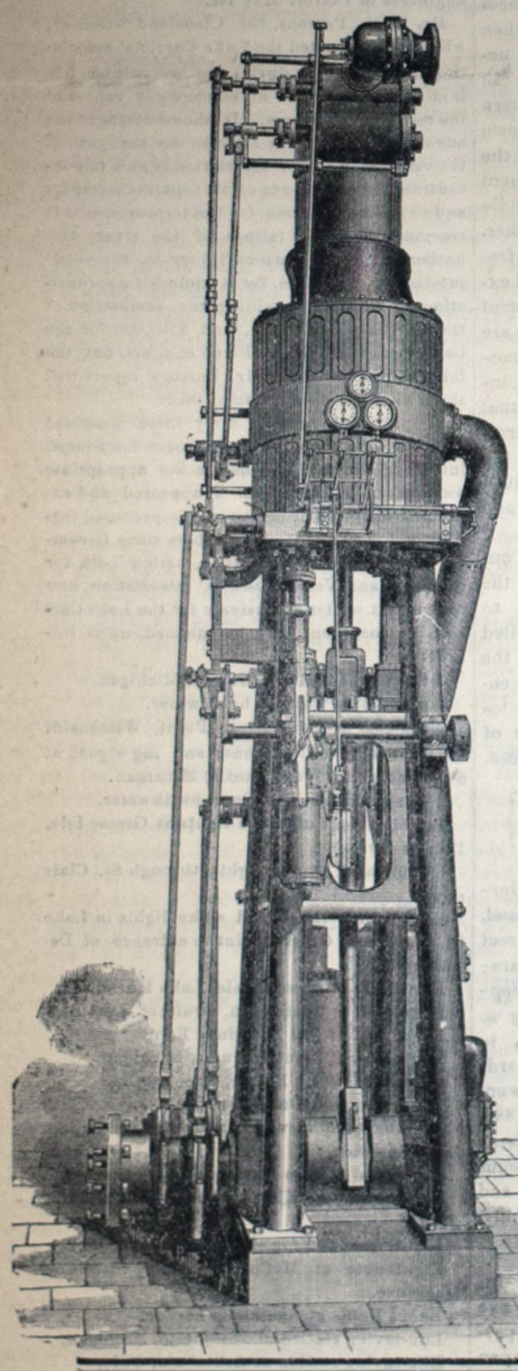

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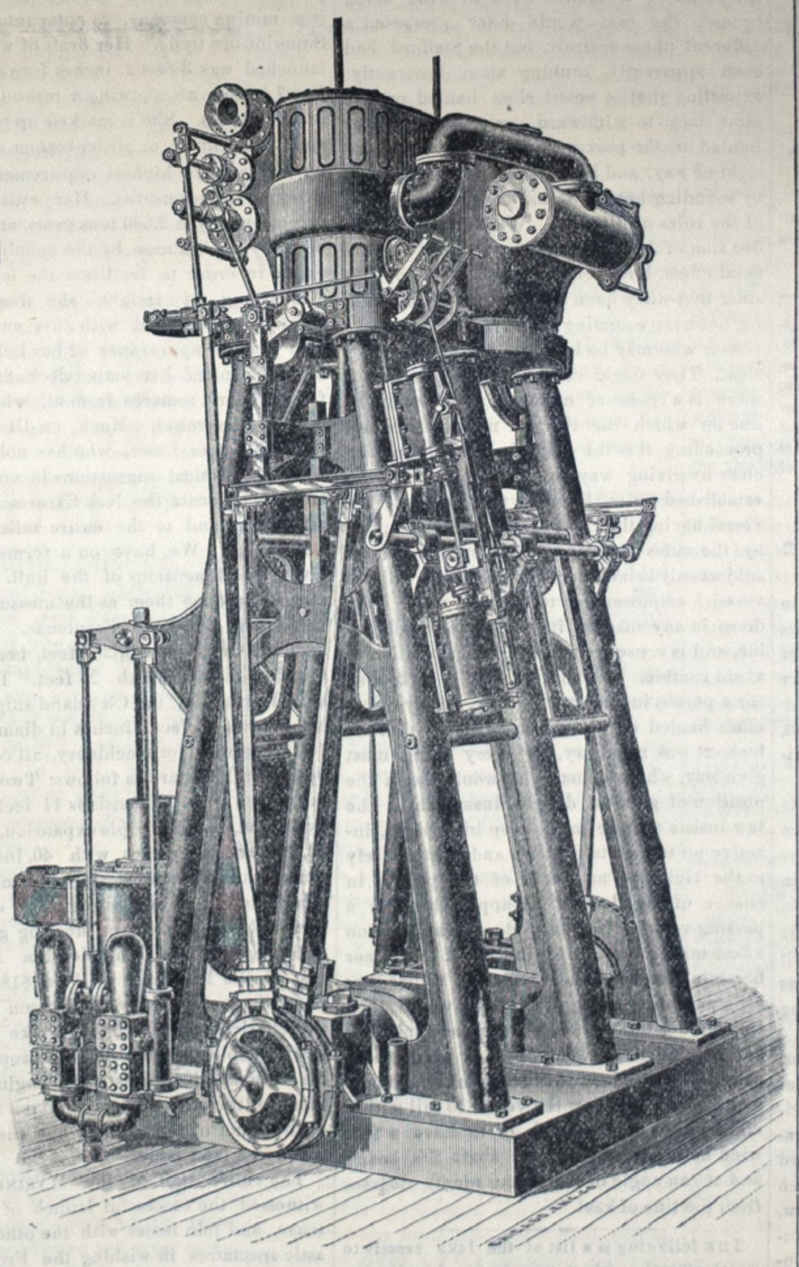

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Marine Record.

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MARINE RECORD—OFFICIAL PAPER.

The Cleveland Vessel Owners' association is prepared to receive applications for admission for 1889, on same terms as last year, viz.: 3 cents per ton on teamers, and 4 cents on sail and consort; old custom house register. The time during which tonnage may be admitted expires May 15th, but it is desirable that all crafts intending to come in should apply before the opening of navigation, and have the benefits of the entire season. Address,

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WHAT IS "SAILING FREE."

The recent decision of Judge Blodgett in the admiralty case reported in our columns last week, where the owner of the schooner Morning Star sued the owner of the schooner Stafford for damages in a collision, which occurred off Cat Head Point, Lake Michigan, 1887, is of considerable importance to mariners.

Judge Blodgett, it appears, undertakes to assert that a vessel is not sailing free until she has the wind abaft the beam, and the Chicago Inter Ocean suggests that this ruling is in accordance with the custom on the ocean, adding, that this is the first time for the rule to be so construed, and for the future it will be understood to mean as Judge Blodgett has decided, simply that a vessel is not sailing free until she has the wind abaft the beam.

The main question in this case, however, was to solve the meaning of the fog signal rules provided for sailing vessels when navigating in a fog, and the result of the deliberations of the judge was certainly in accord with the international rules of the road which says, "that in fog, mist or falling snow, whether by day or night, a sailing vessel under way shall make with her fog horn at intervals of not more than two minutes, when on the starboard tack, one blast, when on the port tack two blasts in succession, and when with the wind abaft the beam three blasts in succession;" hence, it being clearly proved in evidence that the Stafford had the wind on the starboard side and abaft the beam, she ought to have been blowing three blasts instead of one; therefore, we hold that the decision was a righteous one in this particular case; but, a decidedly wrong one in construing the international rules of the road and the customary or ordinary practice of seamen on the ocean. In this connection we feel confident in asserting that as soon as the wind will permit a vessel to steer her course, she has a fair wind, and if the wind favors her by freeing one degree, or ten degrees, she has a free wind, nor need she wait until the wind is large and abaft the beam before it is discovered that she has a free wind, and is there fore sailing free. To farther illustrate our meaning, we may instance a New York pilot boat with the wind at south and close hauled on the starboard tack, heading her course south-east by east, she would then have a fair wind, and if the wind veered one half point to the west, she would have the wind just that half point free, or in other words a free wind, because she was permitted to pursue her course freely; yet, because the smart fore and aft rigged vessel had a fair wind, or even a free wind, the fact would not argue that all other vessels in the immediate locality, who were endeavoring to reach the same point, had a fair wind also. A square rigged vessel, especially of large beam, would hold the south wind as a head wind for ten to twenty degrees after the pilot boat was sailing free, on account of her not laying so close to the wind; hence, the fact that a certain class of vessels may have a free wind when steering at an angle of say fifty-five degrees from the winds eye, while another would not have a free wind when sailing at an angle of sixty-five degrees from the wind, the illustration going to prove that as soon as a vessel can lay even one degree better than a clean rapt, full on her course, she then has the wind one degree free. Holding these views, it may be clearly seen that any vessel, if constructed according to the present mode of shipbuilding, would have a free wind before the wind had arrived at an angle of ninety degrees from the path the vessel was heading when steering a course, and consequently the ruling, that a vessel was not sailing free until she had the wind abaft the beam, is entirely erroneous in point of fact and general seamanship. Therefore, instead of judgment being given because the Stafford had the wind free, which decision would have been equally true if the wind had been twenty degrees forward of the beam, a more correct result would have been obtained if the judge had ruled that she was culpable on account of having the wind abaft the beam, and sailing large, while blowing the signal for the starboard tack, when the wind was actually blowing from the uext quadrant of the compass, and those on board of the vessel rendered themselves liable, and amenable to the law, through negligence, and gross carelessness, in not determining the direction of the wind previous to the collision. In the event of a sudden shift of wind being proved, the case would have presented a different phase entirely, but the Stafford had been apparently running along ignorantly, expecting that a vessel close hauled on the same tack to windward, or a vessel close hauled on the port tack should give her the right of way, and insisting on this prerogative by sounding her fog signal in direct violation of the rules of the road. We believe that the decision of Judge Blodgett will have a beneficial effect, however, on mariners who consider that they have nothing else to do in a fog but keep sounding the horn to warn those vessels who may be in close proximity to keep clear. They ought certainly to realize that if there is a point of collision on the path, or line on which the two or more vessels are proceeding, it is the duty of some one to keep clear by giving way in conformity with the established rules, knowing full well that the vessel having the right of way is handicapped by the rules in having to keep her course subject only to imminent qualifications while a vessel empowered to give way, may do so in any manner it is considered advisable, and is consequently in a better position to avoid trouble. It would be equally as foolish for a person in charge of a deck, to say when close hauled on the starboard tack, that no lookout was necessary, for every thing must give way, where actually he would be in the position of greatest danger, inasmuch as the law insists that he must keep his course, inactive up to a certain point, and trust entirely to the vigilance and skill of the person in charge of the deck of an approaching, or a passing vessel. Not only does this question affect sailing vessels, for in case of a steamer becoming disabled and obliged to utilize her sails as a propelling power, she would then come under the rules of the road as applied to vessels under sail only, and it would be a primitive rig indeed if the temporary arrangement would not allow the vessel to sail within eight points of the wind, or to have a free wind before it had reached abaft the beams and at an angle of more than ninety degrees from the line of keel.

THE following is a list of the lake vessels to which official numbers were assigned by the bureau of navigation, treasury department, Washington, D. C., during the week ending March 23, 1889: Steamers, Joe, Grand Haven, Mich., official number 76,791, tonnage, gross, 38.30, net 30.88; John Mitchell, Buffalo, N. Y., official number 76,792, tonnage, gross, 1,864.92, net 1,491.99; Juniata, La Crosse, Wis., official number 76,793, tonnage, gross, 98.10, net 98.10; Scotia, La Crosse, Wis., official number 116,224, tonnage, gross, 31.57, net 31.57; Thistle La Crosse, Wis., official number 145,508, tonnage, gross, 103.45, net 103.45. Sail, Schooner Tokio, Port Huron, Mich., official number 145,507, tonnage, gross, 1,385.49, net 1,316.22.

LAUNCH OF THE FRONTENAC.

The fine new steel steamship Frontenac was successfully launched from the yards of the Cleveland shipbuilding company, last Saturday precisely at 3 p. m., the time set for the launch to take place. The yards of the Cleveland shipbuilding company being centrally located, and in view from the viaduct, a large number of people witnessed the launch from that place, while crowds thronged the banks of the river, and the property adjacent to the shipyard. The usual interest was manifested in witnessing the virgin plunge of this fine steel structure, and according to the proper order of this important ceremony the ladies were conspicuous in enthusiasm and numbers, while the splendid spring weather permitted a fair showing of elegant costumes, expensive milinery, ribbons, flounces and fixin's which the ladies were pleased to exhibit on so momentous an occasion as a christening in the turbid waters of the Cuyahoga. We are pleased to say that every one present seemed to thoroughly enjoy their experience, and obtained an excellent view of the whole proceeding. We also noticed a number of our local marine friends present at the launch, and among the spectators who were on a visit to the city, we may mention Capt. Wallace, Lorain, O., Captain Valentine Friese, Milan, O.. and Mr C. A. Barr, manager of the ore docks at Escanaba, Mich

All of the officers of the Cleveland shipbuilding company were on the ground and when the preliminaries had been carried out, the word to cut was given, and this fine specimen of marine architecture started to move from the spot where her hull had been reared, f shioned and completed, to the satisfaction of her builders, and owners The ways have a good pitch and the hull moving slowly and regularly, gained momentum as it approached the edge of the dock, the next instant she struck the water fair and square, every plate in her bottom cushioning into her natural element, and with a couple of rolls to port and starboard, as if to shake off the effects of the immersion, she steadied herself, (assisted by the check lines forward and aft), amid the din of steam whistles blowing from the river craft, and the neighboring manufactories, and the involuntary cheers of the large concourse of sight seers, who beheld with wonder the immense floating hull moved with such apparent ease from the position which it had so lately occupied in the builder's yard, to the bosom of the element, "Which from time henceforth" as the parsons say, must become her only means of support both literally and financially.

The Frontenac is the first of the two steel propellers contracted for by the Cleveland iron mining company, to enter into the Lake Superior ore trade. Her draft of water when launched was 3 feet 2 inches forward, and 5 feet 7 inches aft, showing a mean draft of 4 feet 4½ inches. She is marked up to 16 feet, and has a cellular, or girder bottom, and is built according to the highest requirements of construction in steamships. Her estimated carrying capacity is 2,500 tons gross, and she will be ready for business by the opening of navigation in order to facilitate the loading and discharging of freight, she has hatches specially constructed with this end in view. The general appearance of her hull, and the arrangement of her main deck fittings call for laudatory remarks from all who have inspected the vessel. Much credit is due to Captain James Lowe, who has ably assisted with his practical suggestions in enabling the builders to locate the deck fixtures to the best advantage, and to the entire satisfaction of her owners We have on a former occasion given the dimensions of the hull. We may now re-produce them as the measurement of new steel steamship Frontenac. Length of keel, 271 feet, over all, 291 feet, beam 39 feet 6 inches, molded depth 24 feet. The wheel, manufactured by the Cleveland ship building company is 12 feet 6 inches in diameter, with 16 feet lead. Her machinery, all constructed by her builders, are as follows: Two boilers of the Scotch type, dimensions 11 feet 6 inches by 14 feet, engines triple expansion, cylinders 20, 32 and 52 inches with 40 inch stroke, steam windlass and steam capstan, from the American Ship windlass company, of Providence R. I., and steam steering gear, from Williamson Bros' Philadelphia Pa. The cost of the Frontenac will be $185,000, and Capt. Samuel Murphy, last season master of the Charlemagne Tower, will take charge of this valuable piece of floating property, with Mr. Thomas Kelley as chief engineer. The names of the other officers could not be learned at the time of the launch, but they will be given in a later issue.

The entire staff of the MARINE RECORD witnessed the successful launch of the Frontenac, and join issues with the other enthusiastic spectators in wishing the Frontenac all of the success which it is possible for her to have during her career, and that she may substantially endorse this good opinion by causing her owners and builders to go on duplicating the latest addition to the splendid fleet of the inland maiine.

Senator Blackwell's resolution asking for the survey, under the direction of the secretary of war of the United States, for the construction of a ship canal connecting Lakes Michigan and Superior, and saving to the general government great expense in naval operations in the upper lakes in case of war, passed the senate.

THE OLD RIVER BED.

At a meeting last week of the Cleveland Vessel owners Association, which includes and represents practically all the vessel owners of this district, the following resolutions were unanimously adopted:—

Whereas, there is now pending in the Legislature of the state a bill authorizing an expenditure by the city of Cleveland of a sum not greater than $25 000 for the purpose of opening the old river channel in this harbor, or the "river-bed," so called, to the lake;

Resolved, that every effort should be used to further the movement for opening up this channel, and that the delegation from this county in the legislature be requested to use all proper efforts to secure the passag of this bill

Resolved, that the opening of this channel will be of great benefit to the shipping and commerce of this harbor, and to all vessels which, in the course of their trade, are required to make use of this harbor.

That for the following reasons: The harbor of Cleveland consists of the Cuyahoga river and the old river-bed. That when the new cut which forms the present entrance to the harbor of Cleveland was put through a good many years ago, the natural mouth of the river was permitted to be closed up, because, considering the number and size of vessels then employed on the lakes, the entrance as then established afforded ample facilities for the purpose. Vessels in that day were small, the largest, with the exception of a very few passenger steamers, being not over 150 feet in length, about 26 feet beam, and 10 or 11 feet draft when loaded, while the average size was very much below this. During the past ten years most of the vessels built have been from 250 to 300 feet and over in length, with a breadth of about 40 feet, and a hold of over 20 feet; and all the waterways on the lakes, including our harbor at Cleveland, have been deepened, so that vessels now carry a draft, when loaded, of 16 feet, and sometimes over. The river-bed is almost wholly lined with coal and ore docks on both sides, and an immence number of these large craft go up into the river-bed for the purpose of discharging ore and loading coal. From the present entrance to the harbor the course into the old river bed turns at a right angle making a bad place for those long vessels to turn, especially when they are without cargo and consequently high out of water, a difficulty which is greatly increased when there is a strong wind. Owing to the narrowness of the river bed and the fact that vessels lie on either side loading or unloading cargoes, it is impossible in most instances to turn one of these long vessels around when she has once entered the river bed, thus necessitating that after a vessel has gone in head first she must be pulled out by tugs stern first, with very little command of her own movements, and the result is that, without the greatest care, blockades would be of frequent occurrence under the most favorable conditions, and are inevitable in windy weather. This condition of things leads to delay, frequent demage and considerable additional expense. It is only by the most persistent efforts of the harbor master that blockades are not of almost daily occurrence near the junction of the old river bed and its entrance into the main river as now used. By actual count in the month of July last, 1,396 craft passed through the railroad bridge near the mouth of the river, this number not including rafts, flat boats, harbor tugs, lighters, and pleasure and other small boats.

If the old river bed channel is opened out or the lake as proposed, vessels entering the river bed from either end will be enabled to pass on through without having to be pulled backwards, as above described, and the pressure will be relieved at the present entrance, and these two results, working together, will afford relief to shipping here of which it now stands very seriously in need.

TREASURY DEPARTMENT,
BUREAU OF NAVIGATION,
WASHINTON, D. C., March 23, 1889.

To the Editor of the Marine Record.

This office is informed, through the German legation here, that a three-masted vessel, of American build was driven upon the reef north of the entrance to the lagoon of Taraway, in the Kingsmill group, early in September 1888; that it was impossible, owing to the shortness of the stump of the mast, to determine whether there had been any yards at the maintop or not; that the vessel went to pieces subsequently to September 20, 1888, and that the cargo consisted of petroleum the cases being marked: "Refined petroleum Atlantic refining company, Ward Trow and Co., agents, Philadelphia." Respectfully, yours, C. B. MORTON, Commissioner.

THE government of Japan desires to increase their navy by building four or five first class ships every year, in order to be prepared for any possible emergency. Japan already posesses a navy of thirty-five ships and 8,000 officers and men. A commission of engineers are at present in America inspecting our newest war ships, with a view of building similar vessels in Japan.

THE average cargo of registered vessels which passed thorugh the Sault ste. Marie canal in 1887 was 644 tons. The total valuation of commerce in 1888 was 62,156,020an increase of $3,000,000 over 1887.

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MARINE RECORD—OFFICAL PAPER.

LAKE CARRIERS' ASSOCIATION.

Special to the Marine Record.

The board of managers of the Lake Carriers' association held a meeting in Buffalo, March 20, 1889. President Caldwell was in the chair.

The amendments to the by-laws submitted at the last meeting were unanimously adopted. Before the amendment the constitution contained no provision as to what should constitute a quorom at board meetings. As amended, four shall constitute a quorum, and the president may, in his discretion, call for a vote of the members of the board by mail on any question. By the other amendment vacancies occurring in the board of managers may be filled by a vote of the board at any meeting. Under the power given by this amendment William Livingstone, jr., of Detroit, was elected a manager to fill the vacancy caused by the resignation of James W. Millen.

James Carey Evans' resignation as treasurer, on account of his change of residence from Buffalo to Chicago, was not accepted.

In regard to the circular issued February 19, suggesting the maintainance of all necessary private lights from a common fund to be raised by assessment on the members, until the government can be induced to maintain them, the answers received showed such a difference of opinion as to the advisability of the plan that it was decided to drop the matter for the present, leaving the private lights to be maintained as before by individual subscription.

The secretary was instructed to prepare a statement of the objections of the Lake Carriers to the plan for bridging the Detroit river in time for the meeting of the board of survey engineers in Detroit May 1st.

Mr. R. C. Parsons, the Cleveland attorney, who has represented the Lake Carriers' association in Washington during the last winter, has laid before the board of managers a report of the result of his labors. It shews strongly the advantage of continued action on the part of the vessel men. The association is able to concentrate the experience of its separate members and so secure attention for the improvements it recommends. The failure of the river and harbor bill was a serious injury to the vessel interests of the lakes, for it included appropriations of $100,000 for aiding the completion of the St. Clair flats canal, and $100,000 for the improvement of Grosse Point channel, but the following extract from Mr. Parsons' report will show what has been accomplished:

"I prepared bills to carry these proposed measure into effect, and had them introduced into congress and laid before the appropriate committees, before whom I appeared and explained fully the necessity of the proposed legislation. The result of my labors since December 1888, to the present time, acting both for the Cleveland Vessel Owners' association, and for the last winter exclusively for the Lake Carriers' association, may be summed up as follows:

A fog signal at Beaver Island, Michigan.
Fog signal at Chicago breakwater.
Fog signal at Twin River Point, Wisconsin.
Establishing a lighthouse and fog signal at Simmons' reef, (White shoals) Michigan.
Fog signal upon Cleveland breakwater.
Establishment of range lights at Grosse Isle, Detroit river.
Establishing range lights through St. Clair river.
Establishing range and stake lights in Lake St. Clair from Grosse Point to entrance of Detroit river.
Fog signal at Presque Isle, Lake Huron.
Fog signal at Cheboygan, Straits of Mackinac.
Fog signal at Old Mackinac Point,
Fog signal at Point Iroquois, Michigan.
Fog signal at La Pointe, Michigan.
Range lights at Duluth harbor.
Lighthouse at Devils Island, Apostle Group, Lake Superior.
Fog signal at Two Harbors, Lake Superior.
Lighthouse at Eleven Foot shoal, and fog signal.
Lighthouse and fog signal at Squaw Island.
Lighthouse at McCulpin's Point, Straits of Mackinac.
Range lights at Ashtabula harbor.
Life-saving station at Marquette, Michigan,
Life-saving station at Ashtabula, Ohio.
Appropriation for Grosse Pointe."

In addition to the above, a bill was passed providing for the construction of a steam tender for the upper lakes, to cost $85,000, and also a bill for a lighthouse at Chicago, which was signed by the president March 2. The bill for a lighthouse at Eleven Foot shoal, $60,000, at Squaw island and McCulpin's Point did not pass the senate until midnight March 2, and was signed by President Cleveland Sunday, March 3.

SECRETARY,

AROUND THE LAKES.

[CONTINUED FROM PAGE 1.]

BAY CITY, MICH.

Special to the Marine Record.

At the Bay City drydock company's the barge Plymouth, owned by Young Brothers & Reid, which went ashore at Presque Isle, above Marquette, Lake Superior in the fall of 1887, with 1,350 tons of coal on board, and was got off by the Reid towing and wrecking company in July, 1888, has been in drydock during the winter and received new keelsons, entire new bottom, futtocks on each frame, her bottom plank was formerly 3 inches thick and is now 5 and 6 inches, new shelf pieces 6x30 inches, new knees, steel arches 21x¾, new cabin and a thorough overhauling, making her a good, useful barge, and consderably stronger than when she came out. She was in very bad shape when she went into dock, and her owners say that a better job has not been done at any drydock around the lakes.

The tug Sea Gull, owned by the Reid towing and wrecking company, and which arrived here from New York last August, is in drydock. She will receive a new rudder and refastening, and a general overhauling, and be converted into a double decker. She is 176 feet over all, 34 feet beam, 12 feet moulded depth, her engines are double steeple compound, which are being compounded by the Bay City Iron works company, high pressure 20x26, low pressure 36x36, with steam reverse and all modern improvements; two boilers 9x16 each put in her last season, a Hodge wheel 12 feet diameter, 14 feet lead. She will have three masts with derricks for handling pumps, which, with a wrecking outfit, will be always kept on board. She will have electric lights and will be used for log towing and wrecking.

The tug Mocking Bird, owned by the same company, will receive a new stern above water, and a thorough overhauling. The tug Waldo Avery will also receive a general overhauling.

The schooner Mears will go into drydock and receive new keelsons, deck frames and deck, two strakes plank below the covering board, new plank share, covering board, stanchions, solid bulwarks of 3-inch oak and rail, steel arches 12x1, refastening and recalking.

The steambarge Tice will go into dock for a new shoe and wheel and calking.

The steambarge Sanilac will go into dock for bottom calking and a general overhauling; the barge Midnight for refastening and recalking.

B. Boutel is fitting out his fleet and will have them all in first-class condition for the opening of navigation. His tug Niagara has been in Wheeler,s drydock and received a thorough rebuild, comprising new frames, ceiling, deck frames and deck, planked up solid to rail, and a thorough overhauling. She will receive a new Scotch type boiler 13 feet 3 inches by 13 feet, built by Thomas McGregor, Detroit, the largest Scotch boiler built for use on our lakes. Her engine is being compounded by the Bay City Iron works.

William Hand and Henry Warner, marine engineers, have invented and applied for a patent for an automatic fusible plug to prevent boilers from exploding on account of low water, It is attached to the boiler about four inches above the tubes or crown sheet, and, if through any cause, the water in the boiler should get below that point the steam will enter the pipe and fuse or melt the plug and give alarm or warning that more water is required in the boiler; the attachment being placed far enough above the point of danger of exploding that the engineer will have from twenty to thirty minutes to get more water into the boiler. Several have been placed on marine and stationary boilers in this city, and have proved on trial a great success. The great use of it was proved by actual demonstration last Wednesday, by one which had been attached to a boiler at Maloney,s box factory. The mill was undergoing repairs and was not running, and the engineer was away, but steam was kept up for the purpose of heating the office; the foreman who was busy in the factory, omitted to attend to the water in the boiler, the water got down below the attachment and the steam rushed into the pipe, melted the plug and gave alarm, and the boiler was saved from being burnt or exploded. The above is one of the most useful appliances ever invented, and will be the means of saving many valuable lives, and reflects great credit on the boys who invented it.

The Bay City Iron works company are busy putting new and larger cylinders into the engine of the steambarge Tice; also compounding the engine of the Reid towing and wrecking company's tug Sea Gull, and doing lots of mill work.

P. C. Smith's tug, Sarah Smith, broke her wheel Saturday, and received a new wheel Tuesday at the Marine Iron works. All of P. C. Smith's are receiving a thorough overhauling, and will be ready for work when navigation commences. WILLIAMS.

The schooner Morning Star, stone laden, arrived at Toronto on Sunday from Port Credit, the first arrival of the season.

WEST BAY CILY, MICH.

Special to the Marine Record.

The splendid steamship George Hadley recently built by Captain James Davidson and purchased by George Hadley, George H. Ketchum and Captain C. Hubbard of Toledo, had her fine machinery set in motion and wheel turned over for the first time Tuesday afternoon, everything working smoothly and in perfect order. The George Hadley is the largest wooden steamship afloat on our lakes, her dimensions are as follows; 316 feet over all, 41 feet beam 25 feet molded depth. She has a very fine triple expansion engine 20½ and 33 and 54 by 42 built by the Frontier iron works Detroit. Two boilers 11½ x 13 each for 150 pounds steam pressure built by M. Riter Buffalo. The American ship windlass company's steam windlass and capstan forward, and steam capstan aft, and Williamson Bros. improved steam steerer. She is built of very fine heavy timber which is well astened, she has steel plates on her keelson, three steel arches outside and one wide arch inside and is diagonally iron strapped, and she is of excellent model, and will carry 2800 net tons. Her cabins, officers rooms, and extra parlors and bedrooms are fitted out with great taste and elegance, the dining room is of mahogany, the guests parlor and bedroom aft is of antique oak and their parlor and bedroom forward is of cherry. Her side board is elegant and cost $150. A splendid service of solid silver, and a splendid set of fine china will be placed on her for the use of guests, and a very fine set of china for the officers and crew, in fact she has the finest furniture and fit out of any steamship on our lakes. WILLLIAMS.

Captain James Davidson has just purchased the furniture for the cabins, and staterooms of the new propeller, Geo. E. Hadley, which has been sold to Toledo people. The captain's stateroom has a splendid antique oak roll top desk, large arm chair, and three smaller ones, with a large French plate pier glass. The forward and after parlors are luxuriously furnished with San Domingo mahogany, taples, lounges, and chairs, upholstered in silk, velours, and plush, with a tiger skin rug lounge, and the usual minor appendages The dining room is furnished with a sideboard of carved oak in antique design, with curiously wrought old silver mountings, tables and chairs of oak to match, and a solid silver set of table ware. Two spare staterooms are also elegantly furnished with cheval dressers in oak, wash stands, chairs and hair mattrasses ou springs.

KENOSHA, WIS.

Special to the Marine Record.

Already the sound of the calking iron and mallet are heard, informing the passers by of the river front that another season of navigation is at hand. All is hustle and bustle in getting the fleet in shape for the coming season's business.

Quite extensive repairs have been made during the past winter on the schooner Wallin. She received new planking, ceilings, deck beams, new decks, stanchions, rails and covering board, part new keelson, and an entire new stern.

The schooner Ostrich received some new ceiling and outside planking, rails fore and aft, new hatch coamings, some new deck and pawl post. Schooner Morning Star, some new deck, and forward rail. Schooner Two Fannies, four new hatches and hatch coamings, part new rails. Schooner Wolverine new cabin.

The Jura and Evaline are also to receive a general overhauling. The entire work on the fleet was done by E. Tease & Co., who are receiving great courage as ship builders and repairers.

Recent vessel transfers at this place are a two thirds interest in the schooner Naragansett, by George Baldwin to E. G. Hazelton. The Naragansett was built by Martin & Quayle of Cleveland, in 1861, rates A2½, and has an Inland Lloyd's valuation of $7,000. Consideration private.

Messrs. Allen, Jackson & Wygatt have sold the schooner Evaline to E. Northway. Consideration, $3,000. The Evaline was built at Grand Haven in 1861. Measures 224 tons, rates B1.

The steamer Maud Preston, has been libeled for something like $300, including wage and supplies.

The new $15,000 iron bridge at Grand street, is finished and open to the public and marine alike. C. A. E.

MACKINAW CITY, MICH.

Special to the Marine Record.

The winter here has been the most mild, and the straits open later, since the winter of 1877-1878.

The ice breaker, St. Ignace, has had little to contend with, and has made her trips as regularly and apparently with as little trouble as in the summer months.

The prospects for an early opening of navigation are very promising; the ice, which at no time has exceeded eighteen inches in thickness, is fast becoming honey-combed, and if the present favorable weather continues, the probabilities are that boats will pass through the straits by April 1st. Fishermen moved their shanties off the ice several days ago. S.

ASHTABULA HARBOR, OHIO.

Special to the Marine Record.

Captain William Downs of the tug line here, has gone to Ireland for a brief visit to his old home, and to bid old friends a probable farewell forever.

Drillers are working on the rock in the L. S. channel, and vesselmen will be pleased to learn that they now have an easy swing to land their boats at the L. S. hoists, instead of the old right angles.

Captain Buie, of the Kittie M. Forbes, and Captain Bartholomew of propeller Vienna have arrivad.

Captain George McKay was here Monday looking after after the interests of his line at this point. F. L. T.

ERIE, PA.

The Anchor line appointments were put in the hands of the collector today for the licenses for masters for this season as follows: India, W. W. Smith; China, M. Niland; Japan, Robert Smith; Winslow, John Maloy; Annie Young, A. E. Huff; Gordon Campbell, George Graser; Lehigh, H. A. Sissons; Clarion, Joseph Corcoraen; Susquehanna, M. Riley; Philadelphia, P. O'Neil; Alaska, John Doherty; Lycoming, John McCarthy; Conemaugh, C. Mason; Delaware, Charles Christy; Juniata, Dallas Ryder; Conestoga, P. H. Riley; Wissahickon, Henry Dirker. The list shows no change from last season except in the case of the Alaska, John Doherty succeeding Captain Wilson, who resigned to become master of the barge Fedora. Mr. Doherty's appointment is a promotion from the position of mate.

DETROIT, MICH.

It is the intention of the M. B. B. A. No 3, Detroit to open a marine engineer's exchange at their hall, 17 Woodward ave., to enable engineers seeking employment to obtain appointments, and owners or masters of steamers to obtain engineers.

Captain Thomas B. Hodson, late of Lansing and formerly of Detroit, died suddenly Monday at Muskegon. He was was for many years connected with the lakes, and was captain of the steamer Mayflower, plying between Detroit and Buffalo.

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from St. Ignace and Cheboygan yesterday stated that ost of the ice had gone out of the straits on Saturday night with a high west wind. Above Mackinaw the channel was reported open, but in the south passage above Cheboygan there was still much ice. It was believed that steamers could have got through by taking the north passage. This opening is about six weeks earlier than last year's, when the first passage was made on May 4. Strangely enough, this is not considered good news by vessel-owners. It will make the season long, draggy, and perhaps unprofitable, they believe. With the present outlook for freight, it would have been much better had the opening been deferred till May 1. The local vessel owners held a meeting yesterday afternoon. The news from the straits was fully discussed. A verbal agreement was made that their boats would not be started before April 15. The propeller lines were represented.

As far as known, no boats at Chicago are yet ready to come down. It is doubtful if anything will leave there for Buffalo before April 1. The steamer Porter Chamberlain was yesterday to start down from Alpena.

The steamer Gladstone will today be towed to the Pennsylvania trestle to load coal fo Chicago. Nothing further in the way of chartering has been done. Shippers are not yet in shape to begin work.

STEEL IN SHIP-BUILDING.

United States Consul Jones, of Cardiff, in a recent report, makes some very interesting statements regarding the extent to which steel plates have snpplanted iron in ship building. Out of a total tonnage launched in Great Britian in 1888 of 906,131 tons, no less than 806,706 tons, or 88.9 per cent, of the whole, was of steel. In 1887, 465,792 tons were built of steel, against 325,019 tons built of iron, showing an increase last year in favor of steel of 8.5 per cent.

It is generally estimated among English builders that if an iron vessel costs $48 60 per ton, a steel vessel would cost $46.56 a ton of her deadweight of carying capacity. There is not at present any very great difference in the price of steel and iron ships; therefore, the superior buoyancy and lasting qualities of steel ships give them decided advantages over those built of the older metal.

There is another side, however, to the question. According to the Newcastle Chronicle in the case of H. M. S. Nile, a new vessel, but already being docked, corrosion is found to have taken place to a very serious extent ir the steel plates in certain parts of the vessel The rivet heads were effected to a great extent just about the water line, and it becomes now a question that will have to be considered whether there can be a more efficient coating for the plates, &c., or whether there must be in some parts of the ship a return either to the use of iron, or to plates as thick as the iron ones would have been.

The official report on the subject will be awaited with interest.

The repairs on the A. A. Turner are more extensive than at first reported. A new deck new deck beams, hatches, spar, and other repairs are being made.

FORE AND AFT.

H. Baby has purchased the steamer Chief Justice Waite for the Chicago excursion business; consideration $6,125. The Waite is 188 feet long, with 46 feet beam and 11 feet nold. She tons 571.10.

Jno. H. Morrill, of N. Y., representing eastern capital, is in Lansing, Mich., to secure, if possible, a charter from the legislature for a company to build a ship canal to connect Lakes Michigan and Superior. The projected work starts in Au Train river, sixteen miles east of Marquette, and follows the river to Little Bay de Noquet at Gladstone. The proposed canal would be 36 miles long, and would save 271 miles between Chicago, Duluth and other ports. Morrill says the company is ready to organize within two months after the charter is secured.

Andrew Hackett had the Bois Blanc Island lighthouse illuminated last Thursday evening, for the first time this season. Bar Point followed suit and was also lit up.

On Tuesday the supreme court at Ottawa delivered judgment in the celebrated St. Magnus and Bob Hackett collision suit, allowing the appeal in favor of the owner of the St. Magnus, with full costs.

Mr. Kirkpatrick's bill, granting reciprocity in wrecking in the inland waters of Canada, was read a third time and passed the house of commons after an hour's debate. The bill as amended in committee is the exact complement of the American statutory offer.

That the straits will open from two to three weeks earlier than last year, there is no doubt. Warm weather for a couple of weeks has weakened the ice very much, and between Mackinac Island and St. Ignace it is rotten, while over the straits it is breaking a great deal.

The prospects for an early opening of navigation at Port Colborne are favorable. The ice in the canal and harbor has gone. Not so much ice formed in the lake this winter as formerly and it is disappearing fast. If the weather continues favorable the canal will be open by the 15th of April. A number of vessels are engaged in fitting out.

A canal is projected across the southwestern portion of France, from the Mediterranean sea to the by of Biscay.

The president signed the Nicaragua canal bill Feb. 20, and the work of construction will probably be commenced soon.

The Russian government has agreed to the proposals of the channel company, which has been formed for the purpose of uniting the Black sea and the sea of Azov.

The steamer Riverside is running regularly between Detroit and Malden.

It is reported that Miller Bros., of Bay City, are building a vessel on the old plan, which will be a surprise to sailors. She will be a brigantine in rig, including a handspike windlass, will be steered by a tiller, and will have her cooking galley amidships on deck.

At Chicago the steamer G. W. Morley has been placed for corn to Buffalo at 2¾ cents, and the Escanaba for corn to Ogdensburg at 5½ cents. At that port are afloat 275,000 bushels of wheat, 930,000 bushels of corn, and 28.000 bushels of oats, most of it destined for Buffalo.

The first vessel of the season arrived at Milwaukee Monday from Kewaunee, on the west shore of Lake Michigan.

The steamer Ossifrage left Duluth Saturday for G

The work of ceiling the new steamer at Morley's yard is now completed, and the deck beams, for the main deck, will be put in this week.

The burned Michigan Central Railwa transfer is now lying at the Grand Trunk wharf at Detroit, where the engines are being taken out. There were thirteen in her, and they have all been sold to eastern parties.

The propeller Nahant is undergoing considerable repairs at Milwaukee.

The following masters of the central Vermont line of steamers have been appointed: Haskell, Harvey Brown; W. J. Averill, Wm. Rollo; W. L. Frost, W. S. Shay; Waverly James Owen; Newburgh, D. A. Kiah.

It is rumored that the Keystone, Masten and "101" each have a corn charter secured for the opening of navigation.

During February Duluth received 291,037 bushels of wheat, as compared with 185,711 bushels for February, 1888, and 411,082 bushels of corn against 297,600 bushels for the same month last year.

Captain Alex. McDougall was down from Duluth yesterday. He is reported as saying that a vessel could readily sail from Duluth to Whitefish Point.

The barge John Breden is reported sold to Coms ock & Co., of Alpena.

The propeller Keystone and consort J. G. Masten, owned by Thomas Axworthy, of Cleveland, were sold at auction at Duluth on Monday for $54,000, being bid off by Mr. Cole, representing an Ohio boat syndicate.

From the best information obtainable it appears that an opening canal rate has been made. It is not thought that any forwarder has placed any loads, but pretty good authority can be given for the statement that shippers have placed 25 loads of corn to arrive at 4¼ cents to New York, the Buffalo elevation to come out of this rate, which will leave less than 3½ cents to the boat. This is a low rate for the opening. It is asserted that the boatmen will combine on one of two alternatives, to demand a good rate or to stop business.

A dispatch from St. Ignace says that the ice at the Straits is very rotten and breaking up at some points. The opening will be two or three weeks earlier than last year.

New York capitalists are seeking to get a permit from the Michigan legislature to build a ship canal from Lake Michigan to Lake Superior by way of Bay au Train, 15 miles east of Marquette and little Bay de Noquet, a Gladstone on Lake Michigan. The canal will be 36 miles long and will shorten the distance between Chicago and Duluth 271 miles.

THE proposal of N. F. Palmer & Co., of the Quintard Iron works, of $735,000 to construct the machinery and boilers of the new armored cruiser Maine, has been referred by Secretary Tracy to a board of engineer officers of the navy for thorough examination before making the award. It is expected that a report will be made before April 1. For six months the specifications and designs of this mammoth work have been at the disposal of ship builders throughout the country, who have pronounced them as being the most complete ever furnished and reflecting deserved credit, upon the navy engineering and the bureau of steam engineering, where they were laid down. They are said to be in simplicity of detail, in design, and effectiveness, supesior to the designs of the battle ship Texas, for which the government paid English experts $15,000

THE first iron vessel was built in 1787. She made her first trip to Birmingham England, on a canal for which kind of navigation she was designed. Her cargo consisted of about 23 tons of iron She was 70 feet long, by 6 feet 8½ beam. Her plates were 5-16 of an inch thick, the stern post and beams were of wood. Empty, she drew about 8 or 9 inches of water. Such was the humble forerunner of the iron leviathans of to-day.

A STIPULATION in a bill of lading to the effect that in case of loss the carrier shall have the benefit of any insurance on the goods does not entitle the carrier to receive such benefit or to a tender of the same before an action can be brought against it for the loss, according to a decision of the supreme court of the United States in the case of Inman vs. South Carolina railroad company.

FREIGHT OUTLOOK.

We have little to report in the present outlook, and no new charters have been made since our last issue, although ore has been purchased rather extensively during the past week. Furnace men evidently expected that carriers woul be found to handle Lake Superior ore at 1.25, but there is not the slightest indication at the present time that vessel men will consider anything less than 1.50. We would not be surprised however, to hear that an outsider had broken away from the rge ofan d acceptedcena two less, but any spks an this ot would be simply speculative, and not a representative charter. With this outlook furnace men ought to come to the conclusion that they had tonnage down to the lowest notch, but whether they do, or not, veasel owners are not compelled to accept rates which will leave a balance on the wrong side of the ledger at the end of the season.

A dispatch from Cheboygan yesterday states a high west wind on Saturday night opened the straits, and boats can now get through by taking the north passage. This is six weeks earlier than last year, when the straits opened on May 4th. Only one March opening has occurred since 1854, that of 1878, when the opening date was March 14th. But an opening must be proven by a vessel passing through before it can be settled.

A PROJECT is on foot in St. Louis to establish a line of double-hull, light draft, adjustable keel steamers to run between points on the Mississippi river and central and South American ports. The merchants of La Guayrs, Maracaibo, Puerto Cabello, and the Island of Curacoa have taken 150,000 shares of stock, and it looks very much as though the scheme would be a success.

FOR SALE.

SMALL SCHOONER, brand new, complete with the exception of canvas and running gear. Len 65 feet over all, beam 17.4, depth 5 feet, tonnage 31.5 Terms $1,000 cash. Address,
MARKHAM & MARKHAM,
Manitowoc, Wiscons in.

ERIE RAILWAY.

The favorite and picturesque route to New York, Boston, and the East. The shortest and quickest route to Pittsburg, Washington and Baltimore, and the southeast.
New Central Depot South Water st. and Viaduct.
Change of time goes into effect Dec. 23, 1888.
Central or ninetieth meridian time, 33 minutes slower than Cleveland city time.
Until further notice trains will leave from the new Central Depot, South Water street and Viaduct, as follows:

DEPART.

No. 62, Mahoning Valley Accom	† 6 00 a m
No. 72, New York Express	* 8 30 a m
No. 72, Fast Pittsburg Express	* 8 30 a m
No. 64, Pittsburg Express	* 3 00 p m
No. 66, Leavittsburg Accom	* 4 20 p m
No. 68, New York Express	†10 50 p m
No. 68, Pittsburg Express	†10 50 p m
No. 70, Pittsburg Local Express	†11 45 a m
No. 74 Youngstown	† 4 20 p m

ARRIVE.

No. 65, Fast New York Express	*12 50 p m
No. 61, Pittsburg Express	† 7 35 p m
No. 67, Pittsburg Express	*10 55 a m
No. 65, Pittsburg Express	†12 50 p m
No. 63, New York Express	* 6 50 p m
No. 63, Pittsburg Express	* 6 50 p m
No. 69, Pittsburg Local Express	† 8 10 p m
No. 13, Youngstown Local	† 5 25 p m

*Daily. †Daily except Sunday.

☞This is the only route by which passengers can reach Cory, Elmira, Binghampton, New York City, and intermediate points without change. No change to Boston and New England cities.
Baggage checked through to all points East.
Through tickets and information regarding the route can be obtained at office, 141 Superior street, and at depot Erie railroad, South Water street and Viaduct, Cleveland.
A. M. TUCKER, Gen. Supt., Cleveland.
L. P. FARMER, Gen. Pass. Agent, New York.
W. C. RINEARSON, A. G. P. A., Cleveland.
M. L. FOUTS, Passenger Ticket Agent, 141 Superior street, Weddell House, Cleveland.

[CONTINUED FROM SECOND PAGE.]

course of the Nahant was N. by E, (p. 81,) and our courses from North Point were about parallel all the way down. The Palmer (pp. 65, 66) had steered N. by E. half E. for three hours, then N. half E. for a little over three hours, which was an average course N. by E. for the whole time, and she was about relatively the same distance outside of us in the lake as when we started from North Point. No reason appears why we should have been off this course. We had not encountered any craft since the fog set in which required us to do any maneuvering whatever to clear her, and I think it may be taken as an established fact in this case, that the Chamberlain was steering N. by E. when the whistle of the Pridgeon was made. This was also the course of the Brown. (p. 60). Our tow was just at the place that a N. by E. course would bring them.

No better lookout was possible, and ours conformed to the requirements laid down by the supreme court in the case of the Colorado, 91 U. S. Rep., page 692, in which the court say that on a steamer navigating the frequented waters of our lakes, two experienced men having no other duties to perform, should be on lookout in the fog. The master of the Chamberlain was not above blowing the whistle himself, and forward right by the stem of the vessel, in the best place, stood two men of ample experience and good eyesight and hearing, with no other duty to perform, who were shown to have maintained a first class lookout, according in all respects with the situation in which our vessel was.

We made the Pridgeon's first whistle, a single blast, on our port bow.

Prof. Tyndal, in his work on sound, (1887,) page 329, says when undisturbed by echoes, the ear, with a little practice, becomes capable of fixing with great precision the direction of a sound in fog. In the Lepanto, 21 Fed. Reporter, page 658, it is stated, after a careful examination of the subject, that aberration of sound is unusual; that the presence of fog is in fact favorable to the transmission of sound.

The four experienced men who were forward on the Chamberlain, made the Pridgeon's first whistle on their port bow, and their judgment was shortly afterward confirmed by making the lights on the port bow. After whistling, and before the lights were made, no change had been made in our course, except by an order to port one quarter of a point. It was therefore impossible, if these witnesses are truthful, that they should have heard the whistle on the starboard bow of our vessel, or that such might have been the actual direction they by mistake supposing it to have been on the port bow, and that in consequence of the porting on our vessel, they afterward saw the lights on our port bow by the change in our own course. But to clinch the proposition that the Pridgeon was, in fact, on our port from first to last, we have the testimony of the mate, second mate and master of the schooner in low, the Brown. These men heard the Pridgeon's whistle on their port bow. The two of them who were forward before any change was observed in the course of the Chamberlain, and certainly before their own course was changed, saw the mast-head light of the Pridgeon on their own port bow, and on the port side of the Chamberlain, apparently crossing over into the tow or into the path of the tow. And the captain of the Brown, who was on the starboard quarter end had an unobstructed view from straight ahead all around the starboard bow and starboard side, but whose view on the port side was obstructed by the sails which were partly up, heard the first whistle of the Pridgeon and the subsequent whistling all on his port bow, and never saw the Pridgeon at all on his starboard bow, did not see her until after he had ported his own wheel and was passing her after the collision. This is conclusive, since the order to hard a-port on the Brown was first given by thg second mate and passed along by the mate, after the second mate saw the Pridgeon's mast-head light on the port side of the Chamberlain and on the Brown's port bow. The master of the Brown says they were steering N. by E, until their wheel was hard ported under that order, that they came up to N. E. by E. under the hard a-port wheel, and were heading that course when they passed the Pridgeon. Considering the absence of all excitement, certainly up to that time at least on both the Chamberlain and Brown, our provision for running in the fog, our rate of speed and the kind of lookout we were maintaining, it would seem to be apparent, beyond any question, that the Pridgeon, at the time of sounding that whistle, was in fact on the port side of our tow and on the port bow of the Chamberlain and of the Brown, however the Pridgeon was then heading, and on whichever bow she may have first made us.

Our story of the collision then is, not having heard any whistles from this steamer, and supposing that the Pridgeon had heard our whistle (which was powerful enough to carry four or five miles that night), we understood that one blast as a passing signal. In other words, we understood that this vessel on our port bow was coming up on a substantially parllel course, making us on her port bow; that, although she had not seen fit to blow her whistle previously, we knew that we had been regularly blowing ours, and therefore properly assumed that she had heard it and knew

[CONTINUED ON PAGE SEVEN.]

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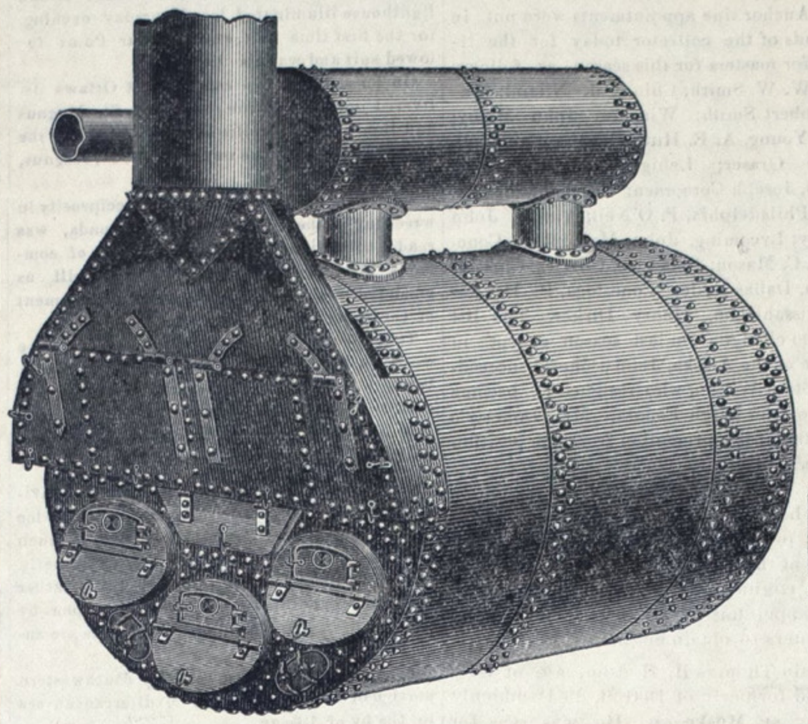

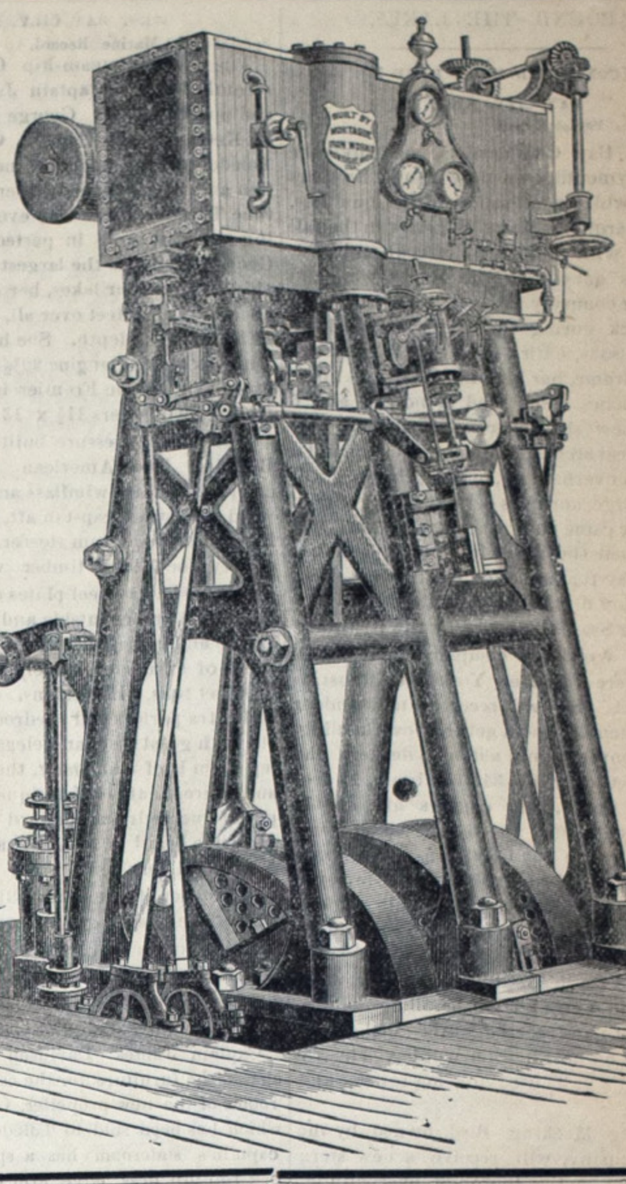

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UNITED STATES ENGINEER OFFICE, Cleveland, O., Feb. 12, 1889.—Sealed separate proposals in duplicate, will be received at this office until 12 m., on Friday, March 15, 1889, and then opened, for dredging at the following harbors: At Monroe harbor, Mich.; at Toledo harbor, O.; at Port Clinton harbor, O.; at Sandusky harbor, O.; at Huron harbor, O.; at Black River harbor, O.; at Cleveland harbor, O.; at Fairport harbor, O.; at Ashtabula harbor, O. All information can be obtained at this office. The United States reserves the right to reject any or all proposals. Preferences will be given to materials and plant of domestic production or manufacture, conditions of quality and price (import duties included) being equal. The attention of bidders is invited to acts of Congress approved February 26, 1885, and February 23, 1887, vol. 23, page 332, and vol. 24, page 414, statutes at large. L. COOPER OVERMAN, Major of Engineers. feb 21-4

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our position from our fog whistle. We accordingly interpreted this one blast as a notification to us that she would keep to the right and desired us to do the same. Our captain at once responded with thn one blast, a passing signal, aed to make assurance doubly sure, ordered the wheelsman to port a xuarter of a point blew his fog signal to call to the mind of those in charge of the other steamer that we had a tow. I submit with perfect confidence that this was good seamanship, on our part, that the judgment formed by our master under these circumstauces was a correct, wise and seaman like judgmen', and that his navigation of his vessel was perfect; and I shall later on show that if the Pridgeon had at the time ported, or if she had not starboarded, but had simply kept her course, there would not, and there could not have been a collision.

After this we made the bright and green lights of the Pridgeon coming into our course on a swing toward us. Our men, who were forward and saw the vessel approach, state that they could see by her lights, and when she came right up close to them, they oould see by the hull of the boat, that she was swingiug rapidly to port on starboard wheel. The second mate of the Pridgeon also testifies that she was swinging to port under starboard wheel. (Respondent's abstract, p. 64). The lookout of the Pridgeon swears she was swinging under starboard wheel, (p. 41), and the mate of the Pridgeon (pp, 89-92), testifies that what called him out from his bed, which was in his room forward underneath the pilothouse, where he was lying down but not asleep, was the order given by the captain of the Pridgeon, first to starboard, and then hard a-starboard. That, in consequence of hearing the order, "hard a-starboard," under the circumstances, he got up, and, after putting on his shoes, started out to the door of his room, and then heard a signal given to the engine to stop and reverse. It is idle to argue in the face of such testimony, coming from the Pridgeon's own crew,(as counsel for the Pridgeon must argue if this vessel is not to be condemned), that she was persuing a st ady and constant course, S. by W., that she made us first on her starboard bow while she was on that course, and that she was on a course S. by W., or S. half W., when she struck, which is the fair result of the testimony of the master and wheelsman of the Pridgeon. Counsel for respondent invoke the rule that the testimony of those on a certain vessel should be taken, as to her movements, rather than that of witnesses who were at the time on another vessel, and ask the court, therefore, to say or to assume, as a basis for a decision in this case, that the Pridgeon did steadily and constantly pursue that course. Under the same rule, I ask the court to consider the testimony cited of the second mate, lookout and mate of the Pridgeon; and also to consider that, in order to hold that the Pridgeon was on that course, S. by W., requires us to have been, without any excuse or necessity, steering a course at least two points to the eastward or our true course, to wit: about N. E. by N., when we made the Pridgeon on our port bow and would further require, if the Pridgeon substantially maintained her course S. by W., until the collision, that we, at the time of the collision, should have been on a course about east. I submit that such an argument has nothing substantial to rest upon, and is idle, even in face of the facts shown here by witnesses other than the crew of the Chamberlain, as well as by their testimony. Surely, if ever a fact depending on human testimony was proven, our N. by E. course down to the time of making the Pridgeon, is established by the testimony which comes from the Brown, the Nahant and the Palmer. And, outside of the clear and reasonable testimony of our own crew, the fact of our making the Pridgeon on our port bow, and on the port side of our tow, when heading the N. by E. course, is unmistakably established by the three witnesses from the Brown, already cited, and is further strengthened by a consideration of the effect of the collision on the course of the Pridgeon.

The testimony from the Pridgeon is unanimous, that the effect was to knock or drag the head of the Pridgeon around to nearly north; that this was done by the Chamberlain going ahead and taking the head of the Pridgeon in the direction in which the Chamberlain was going. And it is further the testimony of both sides in this case, that these vessels came together apparently at nearly a right angle, perhaps, at anangle of six or seven points. Libellant's abstract, (pp. 3, 22, 37), Respondent's abstract, (pp, 35, 38, 42, 54, 70 85, This angle of impact is confirmed by the further fact that the damage done to our vessel, and the apparent direction in which the force was all exerted, was at right angles with our end in line with our deck beams.

It is impossible that we could have carried the Pridgeon around to the northward if she maintained her course at substantially S. by W. or S. half W. until she struck us. If the Pridgeon had been headed S. by W. when she made us on her starboard bow, we making the Pridgeon on our port bow, this would have required that we be heading then before our course was altered at all, as far to the eastward as N. E. by N., then we put our wheel hard a-port, and to support the theory of the Prrdgeon's continued heading S. by W.

[CONTINUED NEXT WEEK.]

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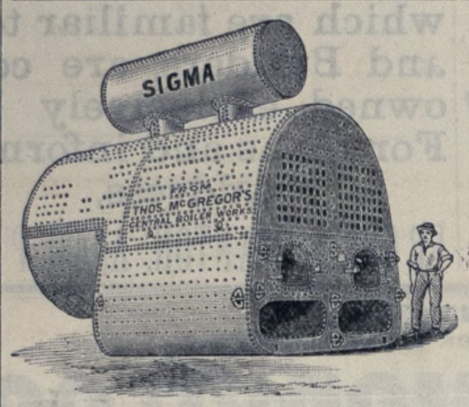

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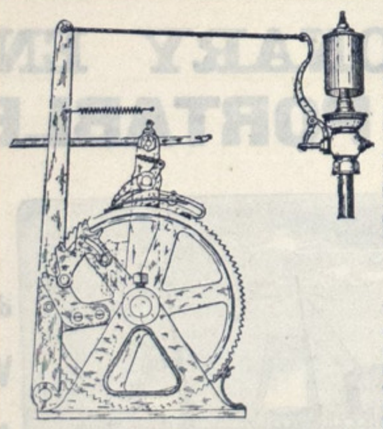

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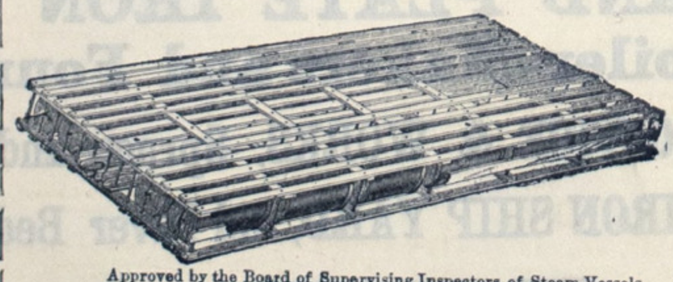

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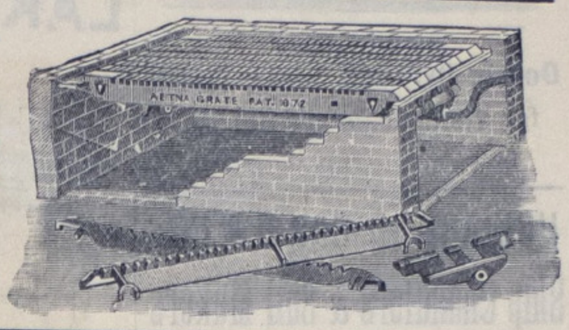

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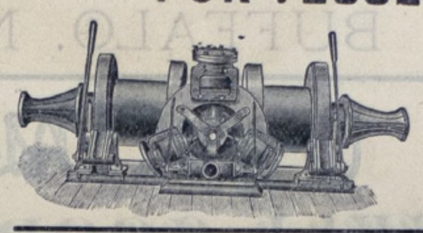

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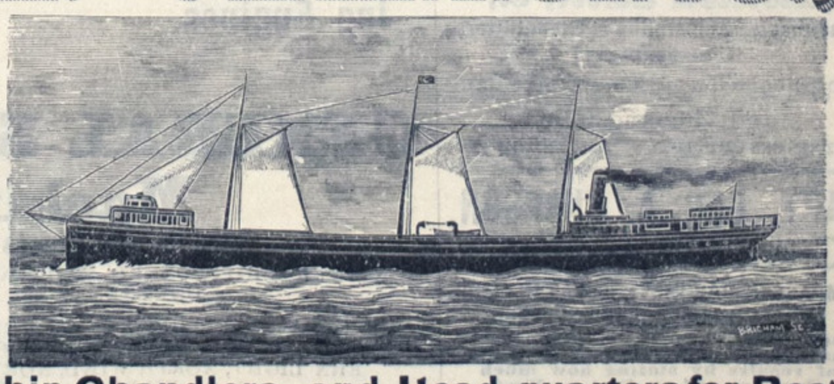

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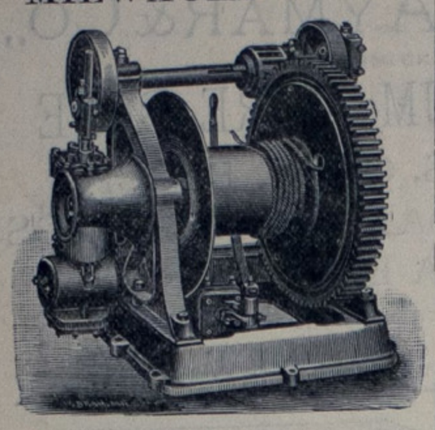

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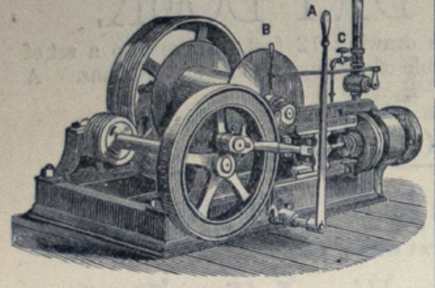

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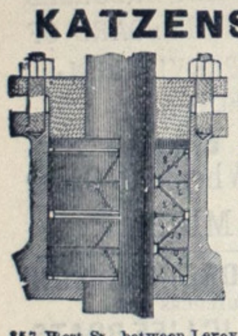

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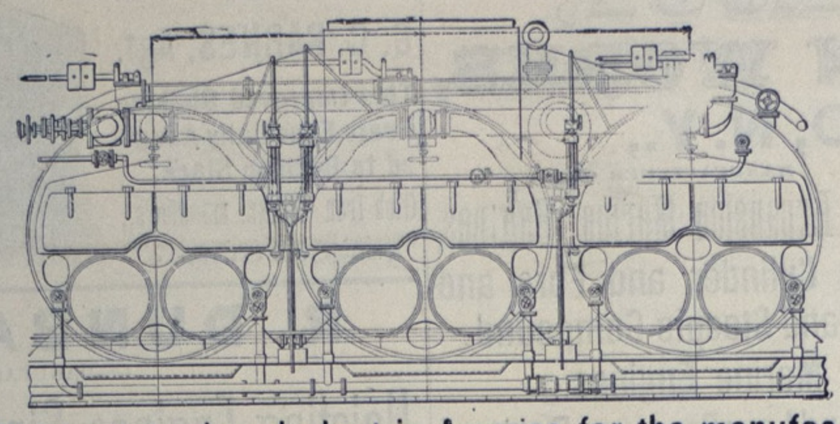

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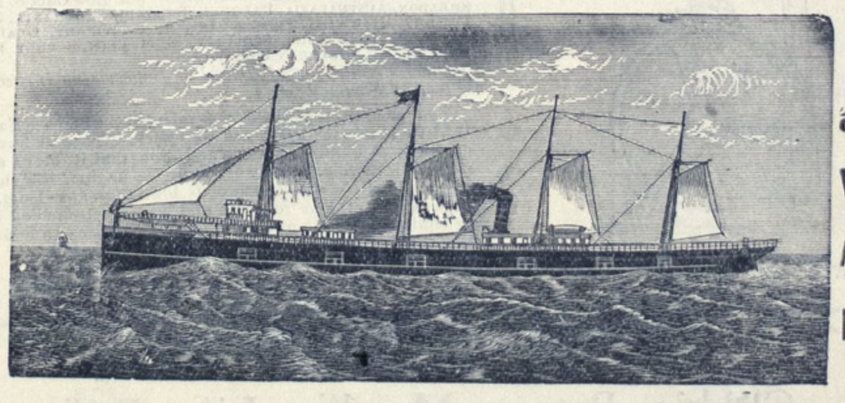

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